

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

3/14/11  
18/25/1991  
✓



Country:	JP Japan
Kind:	
Inventor(s):	TANAKA KOICHIRO SHIOMI TOMONORI
Applicant(s):	MATSUSHITA ELECTRIC IND CO LTD News, Profiles, Stocks and More about this company
Issued/Filed Dates:	Nov. 25, 1991 / March 14, 1990
Application Number:	JP199000063162

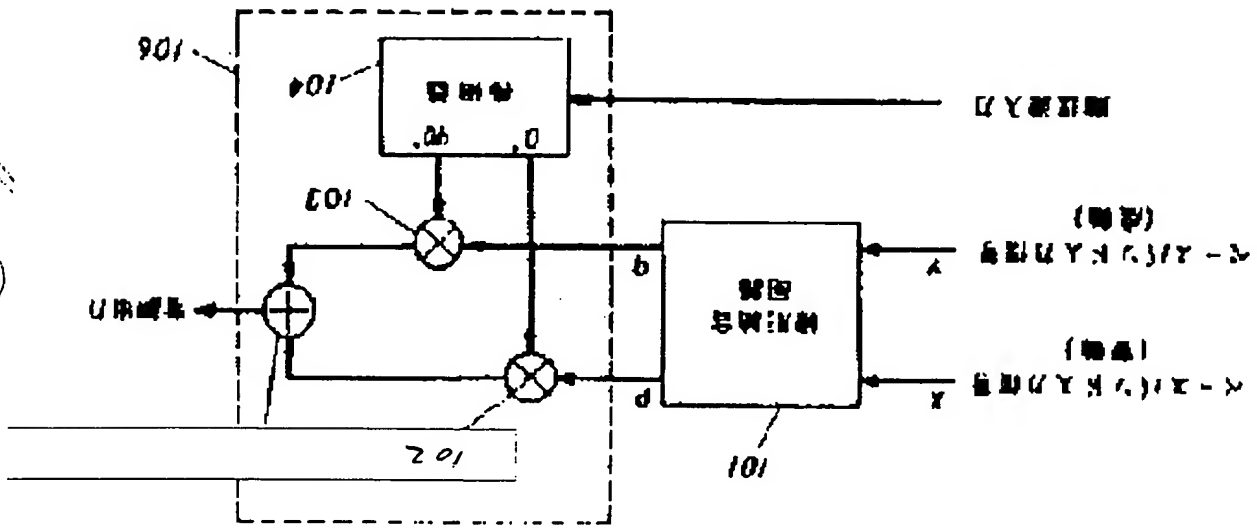
### (54) QUADRATURE AMPLITUDE MODULATOR

#### (57) Abstract:

**PURPOSE:** To dispense with adjustment in a phase shifter in which a high frequency is handled by correcting a baseband input signal used as input to a quadrature amplitude modulator at a linearly coupled circuit to correct the phase error of the phase shifter in the quadrature amplitude modulator.

**CONSTITUTION:** Two baseband signals are linearly coupled appropriately at the linearly coupled circuit 101, and are inputted to the quadrature amplitude modulator 106, and are inputted to multipliers 102, 103 in the modulator. A carrier is changed to a pair of orthogonal carriers with phase difference of almost 90° by the phase shifter 104, and they are multiplied by the baseband signals at the multipliers 102, 103, and are synthesized at an adder 105, then, modulation output is issued.

COPYRIGHT: (C)1991,JPO&Japio



The only additional component for QAM is 101: linearly coupled circuit.

Small add for a QAM can be put into ... it looks in Japan.